

A NEW SPECIES OF *CINARA* FROM COLORADO
(APHIDIDAE)

F. C. Hottes¹

Cinara caliginosa, n. sp.

Apterous viviparous female.—Length from vertex to end of cauda 2.54 (2.20-2.70) mm. Width of head across eyes 0.28 mm. Color of living specimens as remembered from specimens taken in 1954 as follows: Head pale tan, color rather faded or washed out. Thorax and abdomen dull black with no powder. Color as indicated by cleared mounted specimens as follows: Head pale dusky with margins and median transverse suture much darker. Thorax dusky due to pigmented areas. Abdomen pale with cornicles dark brown. First antennal segment concolorous with head, second antennal segment not as dark as first segment. Third antennal segment pale with apical fourth dusky. Fourth antennal segment pale with apical half dusky. Fifth antennal similar to fourth. Sixth antennal segment uniform dusky. All femora pale yellowish dusky on basal half with remainder brownish. Meta-thoracic tibiae with short region near base brownish, this followed by a lighter area about 0.99 mm. long remainder of tibiae and tarsal segments dark brown. Pro- and meso-thoracic tibiae not as dark as the metathoracic tibiae and with the pale area much more extensive.

HEAD AND THORAX. Antennal segments with the following lengths: III 0.75 (0.63-0.94), IV 0.345 (0.30-0.35), V 0.36 (0.30-0.45), VI 0.15 + .045 (0.10-0.18 + .06). Sensoria distributed as follows: III 2 (0-3), IV 2 (2-3), V 2-3 (2). All antennal segments very coarsely imbricated. Hair on antennae sparse, very fine, sharp pointed, on anterior and posterior margins spaced further apart than their length which is about equal to the width of segment or about one third longer than the width of segment. Hair on dorsum of head about 0.08 mm. in length distributed over entire surface, numerous on either side of the median transverse suture over which they criss-cross. Rostrum extending to just beyond the cornicles. Last three segments of the rostrum with the following lengths 0.30, 0.24, 0.09 mm. Median mesosternal tubercle so poorly developed that it might be considered absent. Ventrolateral regions of the meso and metathorax with three well developed teeth, the natrior pair being much longer than the other two. Metathoracic femora 2.10 (1.87-2.10) mm. in length. Metathoracic tibiae 3.30 (3.37-3.67) mm. in length. Meta-thoracic tarsal segments 0.15 and 0.42 mm. long. Hairs on anterior and posterior margins of the metathoracic femora spaced not much closer than their length, very fine and sharply pointed. Hairs on metathoracic tibiae about 0.06 mm. long when sharply pointed, when dull at the end only 0.03 mm. long. Surface of tibiae wrinkled. Ventral surface of first metathoracic tarsal segment with from 16-20

¹ F. C. Hottes, Grand Junction, Colorado.

hairs, all of which are sharply pointed and at times longer than the width of segment.

ABDOMEN. Hair on dorsum of abdomen exceedingly sparse, for the most part spaced 0.15 mm. apart, very fine, and most 0.02 mm. or less in length. Cornicles 0.60 mm. across outer margin, which for the most part is quite regular or only slightly broken. Cornicles in side view 0.30 mm. high. Hairs on cornicles for most part confined to a ring about 0.09 mm. wide near apex. These hairs are 0.70 mm. long. Pigmented areas anterior to cauda wide, often united by a very narrow bridge. The pigmented areas have a row of very fine, sharply pointed hairs along the posterior margin. Cauda and anal plate with very long hairs. Genital plate indented on anterior and posterior margins, with middle region almost free from hair. Hairs on ventral surface of abdomen fairly numerous, about 0.06 mm. in length. Dorsolateral region of abdomen with two rows of small wax pore plates.

Alate viviparous female.—Length from vertex to end of cauda varying from 3.97-4.00 mm. Color similar to apterous viviparous female. Length of antennal segments as follows: III 0.66-0.82 mm., IV 0.27-0.30 mm., V 0.30-0.38 mm., VI 0.15 + .06 mm. Sensoria distributed as follows: III 5.9, IV 2-4, V 2-3. On III the sensoria are arranged in a row, they are only slightly tuberculate. Hair on antennae sparse, fine, sharply pointed, not longer than width of segment. All antennal segments coarsely imbricated. Ocular tubercles well developed. Hair on dorsum of head similar to hair on head of apterous viviparous female. Lateral lobes of thorax with very few hairs. Media of forewings twice branched, the second branch far removed from the margin of the wing. Length of metathoracic tibiae 3.60 mm. Metathoracic tarsal segments 0.125 and 0.39 mm. Hairs on metathoracic tibiae all blunt, and shorter than hairs on apterous female. Hairs on dorsum of abdomen not so far apart as hairs on dorsum of apterous female. Cornicles 0.40-0.48 mm. otherwise as in apterous female.

There is no question about this special being closely allied to *C. coloradensis* (Gillette) and I had so determined it until I checked it with a drawing of that species by Dr. Palmer. It differs from *C. coloradensis* by having numerous crisscrossing hairs on either side of the median transverse suture, in *coloradensis* there hairs are absent. The antennal segments are somewhat longer, especially segment five of the apterous form and three of the alate. The cornicle base is also as a rule larger and more regular. I have seen several of the "type" slides of *coloradensis* from the Colorado collection, they show the hairs on the cornicles similar to the hairs on the cornicles of *caliginosa*. Other slides determined as *coloradensis* show the hairs evenly distributed over the cornicles. Such specimens have the outer margin of the cornicles much broken. Gillette in the original description gives the color of the head as more or less rufous. This does not hold for *caliginosa*. I noted but dismissed this differ-

ence when I first collected my material. Gillette lists both *Picea parryana* (*Picea pungens*) and *Picea engelmannii* as hosts. Dr. Palmer now considers only *P. pungens* the host of *coloradensis*. I am inclined to think that another species is involved in this complex, but Dr. Palmer thinks not.

Holotype apterous viviparous female, morphotype alate viviparus female. Both types mounted on the same slide, in my collection. Host *Picea engelmannii*, July 21, 1954, Glade Park, Colo. (Fruita Reserve). This species lives in large colonies on young branches and the terminal portions of the trunks of young trees.